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Technical University of Warsaw, Poland

Historical Survey.

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The country's industrialization, which followed at the end of the 18th century and continued in the 19th, made necessary the organization of higher technical studies in Poland. Established in 1825, the Polytechnic Council supervised by Stanislaw Staszic tackled the problem of setting those studies in action.

As a result of the work done by the Polytechnic Council the Preparatory School to the Polytechnic Institute was opened on January 4, 1826. In a few years the Preparatory School became, de facto, the Polytechnic Institute itself, with a four year curriculum in the following departments:

Mechanical chemical engineering business

In 1829-1830, 110 students enrolled in courses of study in the School.

The uprising of 1830 curtailed the activities of the Preparatory School. As a result of the uprising, all institutions of higher learning in the Polish Kingdom were closed.

The re-opening of the Institute was discussed in 1829; when the trarist authorities granted permission to construct a new building, providing the Poles would collect 3,500,000 roubles. The Institution known oficially as the Emperor Nicolas'I Polytechnic Institute included three faculties:

Building Engineering
Mechanical Engineering
Chemical Engineering

In 1903 the Mineral Engineering Faculty was established. Russian was the official language in the Institute, Polish members of the staff and the students strongly protested against it on more than one occasion. After the strike in 1905, which was begun by the students in order to introduce

Polish into the School, the Russian authorities again closed the Institute. Renewed efforts to open the Institute in 1908 ended in failure. The Polish youth boycotted all institutions of higher learning until 1914.

The Technical University of Warsaw was opened again on Noveber 15, 1915 with the consent of the German occupation authorities. There were four faculties in that period of time:

- 1. Building and Agricultural Engineering
- 2. Machinery Construction and Electrotechnics
- 3. Chemistry
- 4. Architecture

All lectures were delivered in Polish. The total number of students was 615.

In 1917 the Faculty of Machinery Construction and Electrotechnics was divided into two independent faculties - Mechanical and Electrotechnical. In addition, the Faculty of Hydraulic Engineering was formed.

In November 1918, after first term had begun, the Academic Senate issued a manifesto postponing all activities so that the students might take part in the struggle for national liberation and the securing of Poland's borders. In that way the first academic year in free Poland was devoted to many changes in the organization of the University. The Academic Year 1919-1920 opened in September - with 2041 students.

The serious development of the Technical University of Warsaw can be traced oback to that period. Numerous eminent scientists who had been in exile returned to the University. The equipment in laboratories increased rapidly. In 1921-22 the Surveying Faculty was established and the total number of students was 5648. Several years later, the Faculties of Building Engineering, Hydraulic Engineering, and Surveying, were fused into the Faculty of Civil Engineering. Thus in 1938-39 the Technical University of Warsaw offered the following Faculties:

Civil Engineering
Mechanical Engineering
Electrical Engineering
Chemical Engineering

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and had under its supervision:

68 Chairs

22 Institutes

24 Areas of Specialization

The student body was about five thousand.

World War II and the Nazi occupation of Poland /1939-1945/ ended the activities of the Technical University of Warsaw. During that period the University suffered heavy irrecoverable losses. In the course of the Nazi occupation, 60% of its staff was liquidated, almost all the equipment was destroyed, and a part of the building was ruined.

Immediately after a part of Poland was liberated, efforts to reopen the Technical University of Warsaw again were made. As early as January 22, 1945, the Technical University of Warsaw, with its temporary seat in Lublin resumed its activities; and in the middle of February 1945 it was transferred to Warsaw. The Academic Year 1945-1946 began with work with six Faculties:

Civil Engineering Geodesy Methanical Engineering Electrical Engineering Chemical Engineering Architecture

In that year the Technical University of Warsaw maintained 38 Chairs and 28 Institutes. The dynamic development of the University dates from that time. To make up for heavy losses in personnel employed in the national economy the uniform system of studies was canceled in 1949, and atwo-step system was introduced /with engineer's studies requiring 3 years and graduate studies leading to the master's degree - 2 years/. Since 1954 - 1955 the uniform system of studies was again introduced.

Minute data concerning the Technical University of Warsaw are given in the tables below.

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Faculty of Architecture

Chairs

1. Chair of Architectural Design and Composition.

2. Chair of Town Planning.

- 3. Chair of Industrial Architecture Design.
- 4. Chair of Rural Architecture and Planning.
- 5. Chair of the History of Architecture and Arts.
- 6. Chair of the Polish Architecture History.
- 7. Chair of Building Techniques.
- 8. Chair of Building Structures.
- 9. Chair of Economics of Architecture and Town Planning.
- 10. Chair of Drawing, Painting and Sculpture.

- l. Institute of Architectural Theory and Criticism
- 2. Institute of Housing.
- 3. Institute of Landscape und Garden Planning.
- 4. Institute of Town Building History.
- 5. Institute of Town Planning.
- 6. Institute of Industrial Architecture Design.
- 7. Institute of Rural Architecture and Planning.
- 8. Institute of the History of Architecture.
- 9. Institute of Architectural Forms.
- 10. Institute of the Polish Architecture History.
- 11. Institute of Conservation of Historical Monuments.
- 12. Institute of Building Techniques.
- 13. Institute of Building Installations.
- 14. Institute of Construction.
- 15. Institute of Timber Structures.
- 16. Institute of Economics of Architecture and Town Planing,
- 17. Institute of Drawing, Painting and Sculpture.

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- 11. Chair of Area Planning
- 18. Institute of Housing Estate Planning.
- 19. Institute of Regional Planning.

Faculty of Civil Engineering

Chairs.

- 1. Chairs of Mathematics
- 2. Chair of Theoretical Mechanics.
- 3. Chair of Strength of Materials.
- 4. Chair of Soil Mechanics and Foundation Engineering
- 5. Chair of Construction
- 6. Chair of Structural Mechanics.
- 7. Chair of Reinforced Concrete Construction
- 8. Chair of Steel Bridge Construction.
- 9. Chair of Stone and Reinforced Concrete Bridge Construction.
- 10. Chair of Industrial Plant Building.
- ll. Chair of Industrial Plant Architecture
- 12. Chair of Steel Structures.
- 13. Chair of Underground Structures.

- 1. Institute of Mathematics
- 2. Institute of Theoretical Mechanics.
- 3. Institute of Strength of Materials.
- 4. Institute of Soil Mechanics And Foundation Engineering.
- 5. Institute of Construction.
- 6. Institute of Structural Mechanics.
- 7. Institute of Reinforced Concrete Construction.
- 8. Institute of Steel Bridge Construction.
- 9. Institute of Stone and Reinforced Concrete Bridge Construction.
- 10. Institute of Industrial Plant Building.
- ll. Institute of Industrial Plant Architecture.
- 12. Institute of Steel Structures.
- 13. Institute of Underground Structures.

Faculty of Industrial Plant Engineering

Chairs.

- 1. Chair of Strength of Materials.
- 2. Chair of Building Mechanics.
- 3. Chair of the Elements of Building Technique
- 4. Chair of the Elements of Industrial Plant Engineering.
- 5. Chair of Steel Construction.
- 6. Chair of Reinforced Concrete Construction.
- 7. Chair of Scil and Foundation Mechanics.
- 8. Chair of Organization and Mechanization of Building.
- 9. Chair of Prefabrication and Prestressed Conrete
- 10. Chair of Chemistry and Technology of Building Materials.

Institutes.

- 1. Institute of Strength of Materials.
- 2. Institute of Building Mechanics.
- 3. Institute of the Elements of Building Technique.
- 4. Institute of Building Insulations.
- 5. Institute of the Elements of Industrial Engineering.
- 6. Institute of Steel Construction.
- 7. Institute of Reinforced Concrete Construction.
- 8. Institute of Soil and Foundation Mechanics.
- 9. Institute of Organization and Mechanization of Building.
- 10. Institute of Prefabrication and Prestressed Concrete.
- ll. Institute of Building Materials Chemistry.
- 12. Institute of Building Materials Technology.

Faculty of Hydraulic Engineering.

Chairs

- Chair of Hydraulics and Hydrology.
- 2. Chair of Construction of Water Reservoirs and Hydro-electric Plants.

Institutes

- 1. Institute of Hydraulics and Hydrology.
- 2. Institute of Construction of Water Reservoirs and Hydro-electric Plants.

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- 3. Chair of Waterways and Regulation of Rivers.
- 4. Chair of Construction.
- 5. Chair of Mechanics of Structures.
- 3. Institute of Waterways and Regulation of Rivers.
- 4. Institute of Construction.
- 5. Institute of Mechanics of Structures.

Faculty of Chemical Engineering.

Chairs.

- 1. Chair of Mathematics.
- 2. Chair of Physics.
- 3. Chair of General and Chemical Machine Elements.
- 4. Chair of Petrography and Mineralogy.
- 5. Chair of Inorganic Chemistry.
- 6. Chair of Chemical Inorganic Technology
- 7. Chair of Organic Chemistry.
- 8. Chair of Chemical Organic Technology I.
- 9. Chair of Chemical Organic Technology II.

- 1. Institute of Mathematics.
- 2. Institute of Physics.
- 3. Institute of General and Chemical Machine Elements.
- 4. Institute of Petrography and Mineralogy.
- Institute of Inorganic Chemistry.
- 6. Institute of Chemical Inorganic Technology.
- 7. Institute of Organic Chemistry.
- 8. Institute of Chemical Organic Technology I.
- 9. Institute of Chemical Organic Technology II.
- 10. Institute of Technology of Nitrogen Compounds.
- 11. Institute of Technology of Organic Plastics.
- 12. Institute of Physical Chemistry.
- 13. Institute of Ceramios.
- 14. Institute of Chemical Engineering Unit Operations.
- 10. Chair of Physical Chemistry.
- ll. Chair of Ceramics.
- 12. Chair of Chemical Engineering Unit Operations.

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- 13. Chair of Technological Design.
- 14. Chair of Coal and Fibre Chemical Engineering.
- 15. Chair of Technical Analysis.
- 16. Chair of Chemical Engineering Materials.

- 15. Institute of Technological Design.
- 16. Institute of Coal and Fibre Engineering.
- 17. Institute of Technical Analysis.
- 18. Institute of Chemical Engineering Materials.

Faculty of Electrical Engineering.

Chairs

- 1. Chair of Electrical Networks and Power Transmission.
- 2. Chair of Applied Mathematics. 2. Institute of Applied Mathe-
- 3. Chair of General Physics.
- 4. Chair of General Electrical Engineering.
- 5. Chair of High Voltage Engineering.
- 6. Chair of Electrical Measurements.
- 7. Chair of Theoretical Electrotechnics.
- 8. Chair of Electric Power Stations.
- 9. Chair of Electrical Machines.
- 10. Chair of Electrical Traction.

- 1. Institute of Electrical Net-works and Power Transmission.
- matics.
- 3. Institute of General Physics.
- 4. Institute of General Electrical Engineering.
- 5. Institute of High Voltage Engineering.
- 6. Institute of Electrical Measurements.
- 7. Institute of Design of Electrical Measuring Instruments.
- 8. Institute of Theoretical Electrotechnics.
- 9. Institute of Cables and Conductors.
- 10. Institute of Electrical Machines.
- 11. Institute of Electrical Traction.

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- 11. Chair of Machine Plants of Power Stations.
- 12. Institute of Machine Plants of Power Stations.
- 12. Chair of Electrical Drives.
- 13. Institute of Electrical Drives.
- 13. Chair of Electrical Heating.
- 14. Institute of Electrical Heating.
- 14. Chair of Lighting Engineering
- 15. Institute of Lighting Engineering.
- 15. Chair of Electrical Apparatus
- 16. Institute of Electrical Apparatus.

Faculty of Geodesy and Cartography

Chairs

- 1. Chair of Elements of Geodesy.
- 1. Institute of Elements of Geodesy.
- 2. Chair of Advanced Geodesy.
- 2. Institute of Fundamental Geodesy.
- 3. Institute of Gravimetry and the Theory of the Earth's Shape.
- 4. Institute of Geodetic Geophysics.
- 3. Chair of Geodetic Astronomy.
- 5. Institute of Geodetic Astronomy.
- 4. Chair of Photogrammetry.
- 6. Institute of Photogrammetry.
- 7. Institute of Topography.
- 5. Chair of Geodetic Country Organization
- 8. Institute of Geodetic Country Organization.
- 9. Institute of Town and Country Planning.

- 6. Chair of Surveying.
- 10. Institute of Surveying.
- 7. Chair of Soil Science.
- 11. Institute of Soil Science.
- 8. Chair of Agricultural

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- 9. Chair of Higher Geometry.
- 13. Institute of Higher Geometry.
- 10. Chair of Cartography.
- 14. Institute of Mathematical Cartography.
- 15. Institute of Map Reproduction /Mapping/.
- 16. Institute of Geography.
- 17. Institute of Map Preparation.
- 11. Chair of Egineering and Industrial Geodesy.
- 18. Institute of Engineering and Industrial Geodesy.
- 12. Chair of Survey Adjustment and Geodetic Computation
- 19. Institute of Survey Adjustment and Geodetic Computation.

Faculty of Sanitary Engineering

Chairs

l. Chair of Descriptive Geometry.

- 2. Chair of Construction.
- 3. Chair of Sanitary Biology.
- 4. Chair of Water and Sewage Technology.
- 5. Chair of Sanitary Technique.
- 6. Chair of Water-Supply and Sewerage Systems.
- 7. Chair of Heating and Ventilating.
- 8. Chair of Mechanical Sanitary Installations.
- 9. Chair of Boiler Installations and Heat Economy.

- 1. Institute of Descriptive Geometry.
- 2. Institute of Construction
- 3. Institute of Sanitary Biology.
- 4. Institute of Water and Sewage Technology.
- 5. Institute of Sanitary Technique.
- 6. Institute of Water-Supply and Sewerage Systems.
- 7. Institute of Heating and Ventilating.
- 8. Institute of Mechanical Sanitary Installations.
- 9. Institute of Boiler Installations and Heat Economy.

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Faculty of Transportation.

Chairs.

1. Inst

- 1. Chair of Technical Mechanics.
- 2. Chair of Applied Geodesy.
- 3. Chair of Machine Elements and Mechanisms.
- 4. Chair of Transport Eleotricity.
- 5. Chair of Track Vehicles
- 6. Chair of Construction.
- 7. Chair of Railway Construction.
- 8. Chair of Railway Tracks.
- 9. Chair of Railway Exploaitation.
- 10. Chair of Transport Telecommunication.
- 11. Chair of Road Building and Groundworks.
- 12. Chair of Airport Building
- 13. Chair of Railway Traffic Sefety Measures.
- 14. Chair of City Transportation
- 15. Chair of the Building of Streets and City Squares.

 Institute of Technical Mechanics

- 2. Institute of Applied Geodesy.
- Institute of Machine Elements and Mechanisms.
- 4. Institute of Transport Electricity.
- 5. Institute of Track Vehicles.
- 6. Institute of Construction.
- 7. Institute of Railway Construction.
- 8. Institute of Railway Tracks.
- 9. Institute of Railway Exploitation.
- 10. Institute of Transport Telecommunication.
- 11. Institute of Road Building and Groundworks.
- 12. Institute of Airport Building.
- 13. Institute of Railway Traffic Safety Measures.
- 14. Institute of City Transportation
- 15. Institute of the Building of Streets and City Squares.

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Faculty of Aeronautics.

Chairs.

- 1. Chair of Aerodynamics.
- 2. Chair of Mechanics of Flight.
- 3. Chair of Strength of Aircraft Structures.
- 4. Chair of Aircraft Materials and Aeroplane Production.
- 5. Chair of Aircraft Design.
- 6. Chair of Aircraft Engine Design.
- 7. Chair of Aircraft Engine Production.
- 8. Chair of Aircraft Equipment.

Institutes.

- 1. Institute of Aerodynamics.
- 2. Institute of Mechanics of Flight.
- 3. Institute of Strength of Aircraft Structures.
- 4. Institute of Aircraft Materials and Aeroplane Production.
- 5. Institute of Aircraft Design.
- 6. Institute of Aircraft Engine Design.
- 7. Institute of Aircraft Engine Production.
- 8. Institute of Aircraft Equipment.

Faculty of Telecommunication

Chairs.

- 1. Chair of the Elements of Telecommunication.
- Chair of Wire Transmission Technique.
- 3. Chair of Teletransmission Equipment.
- 4. Chair of Switching Telephony.
- 5. Chair of Radio and Vacuum Tube Technology. /Radio and Electronics/
- 6. Chair of Radio Transmitters and Receivers.

- 1. Institute of the Elements of Telecommunication.
- 2. Institute of Wire Transmission Technique.
- 3. Institute of Teletransmission Equipment.
- 4. Institute of Switching Telephony.
- 5. Institute of Radio and Vacuum Tube Technology. /Radio and Electronics/.
- 6. Institute of Radio Transmitters and Receivers.

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- 7. Chair of Electronic Physics.
- 8. Chair of Radiology.
- 9. Chair of Designing Electro-Medical Instruments.
- 10. Chair of Ultra-Short Waves Technique.
- ll. Chair of Electroacoustics.
- 12. Chair of Telecommunication Constructions and Radio-phony.
- 13. Chair of Telegraphy.
- 14. Chair of Control Engineering and Automation.
- 15. Chair of Television

- 7. Institute of Electronic Physics.
- 8. Institute of Radiology.
- 9. Institute of Designing Electro-Medical Instruments.
- 10. Institute of Ultra-Short Waves Technique.
- 11. Institute of Electroacoustics.
- 12. Institute of Telecommunication Constructions and Radiophony.
- 13. Institute of Telegraphy.
- 14. Institute of Control Engineering and Automation.
- 15. Institute of Television.

Faculty of General Mechanical Engineering.

Chairs.

- 1. Chair of Mathematics.
- 2. Chair of Machine Elements.
- 3. Chair of Thermodynamics
- 4. Chair of Hoisting Machinery.
- 5. Chair of Boilers and Steam Machinery.
- 6. Chair of Heat Turbines.
- 7. Chair of Internal Combustion Engines.
- 8. Chair of Locomotives.
- 9. Chair of Building and Road Machinery.
- 10. Chair of Water Engines and Pumps.

- 1. Institute of Mathematics
- 2. Institute of Machine Elements.
- 3. Institute of Thermodynamics.
- 4. Institute of Hoisting Machinery
- 5. Institute of Boilers and Steam Machinery.
- 6. Institute of Heat Turbines.
- Institute of Internal Comustion Engines.
- 8. Institute of Locomotives.
- 9. Institute of Building and Road Machinery.
- 10. Institute of Water Engines and Pumps.

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- 11. Chair of Industrial Installations and Apparatus.
 - 11. Institute of Industrial Installations and Apparatus.
- 12. Chair of Refrigeration.
- 12. Institute of Refrigeration.
- 13. Chair of the Theory of Mechanisms.
- 13. Institute of the Theory of Mechanisms.

Faculty of Machine Manufacturing

Chairs

Institutes.

- 1. Chair of Metal Working.
- 1. Institute of Metal Working.
- 2. Chair of Machine Manufactu- 2. Institute of Machine Manuring Technology.
 - facruring Technology.
- 3. Chair of Science of Metals .
- 3. Institute of Science of Metals
- 4. Chair of Welding.
- 4. Institute of Welding.
- 5. Chair of Machine Tool Utilization.
- 5. Institute of Machine Tool Utilization.
- 6. Chair of Machine Tool Designing.
- 6. Institute of Machine Tool Designing.
- 7. Chair of the Elements of Foundry Technology.
- 7. Institute of the Elements of Foundry Technology.
- 8. Chair of the Principles of Plastic Working.
- 8. Institute of the Principles of Plastic Working.
- 9. Chair of Technical Metrology.
- 9. Institute of Technical Metrology.
- 10. Chair of Precision Instruments.
- 10. Institute of Technology of Precision Instruments Production.

ll. Chair of Optics.

- 11. Institute of Precision Instrument Construction.
- 12. Institute of Optics.
- 13. Institute of Mechanical Technology of Glass.
- 12. Chair of Technical Mechanics.
- 14. Institute of Technical Mechanics.

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- 13. Chair of Organization, Economics and Planning in Machine Manufacturing Industry.
- 15. Institute of Organization and Economics of Machine Manufacturing Establishments.
- 16. Institute of Technical Standardization.
- 17. Institute of Work Safety Technique.
- 18. Institute of Organization and Economics in Power Engineering.
- 19. Institute of Organization and Economics in the Chemical Industry.
- 14. Chair of Designing Small Mechanisms and Board Instruments.
- 20. Institute of Designing Small Mechanisms and Board Instruments.

Faculty of Agricultural Machines

Chairs.

- 1. Chair of Agricultural Machinery.
- 2. Chair of Electrification of Agriculture.
- 3. Chair of Agricultural Tractors and Machinery Repairs.
- 4. Chair of Utilization of Agricultural Machinery and Tractors.
- Chair of Motorization of Agriculture.
- 6. Chair of the Elements of Agriculture
- 7. Chair of Descriptive Geometry.

- 1. Institute of Agricultural Machinary.
- 2. Institute of Electrification of Agriculture.
- 3. Institute of Agricultural Tractors and Machinery Repairs.
- 4. Institute of Utilization of Agricultural Machinery and Tractors.
- 5. Institute of Motorization of Agriculture.
- 6. Institute of the Elements of Agriculture.
- 7. Institute of Discriptive Geometry.
- 8. Institute of Technical Drawing.

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Faculty of Automobiles and Tractors

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Chairs

Institutes

- 1. Chair of Automobiles.
- 1. Institute of Automobile Design.
- 2. Chair of Technology of Motor Vehicle Production
- 2. Institute of Automobile Testing.3. Institute of Technology of

Automobile and Tractor Produ-

- 4. Institute of Technology of Special Vehicle Production.
- 3. Chair of Technology of Repair and Maintainance of Motor Vehicles.
- 5. Institute of Technology of Repair and Maintainance of Motor Vehicles.
- 4. Chair of Motor Vehicle Engines.
- 6. Institute of Automobile and Tractor Engines.
- 5. Chair of Tractors and Special Vehicles
- 7. Institute of Special Vehicle Engines.
- 6. Chair of Theoretical Mechanics.
- 9. Institute of Special Vehicles

8. Institute of Farming Tractors.

10. Institute of Theoretical Mechanics.

Faculty of Mechanical Equipment

Chairs.

- l. Chair of Mechanical Equipment.
- 1. Institute of Mechanical Equipment Design
- 2. Institute of Automatic Equipment Manufacturing
- 3. Institute of Technology of Mechanical and Automatic Installations.
- 2. Chair of Applied Mechanics.
- 4. Institute of Special Heat-Technique. /Thermo-Engineering/.

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- 5. Institute of Special Problems in Mechanics.
- 3. Chair of Precision Instruments.
- 6. Institute of Precision Instruments Manufacturing
- 7. Institute of Technology of Precision Instruments.
- 4. Chair of General Physics
- 8. Institute of General Physics "D".

Inter - Faculty Chairs

Chairs

- 1. Chair of Political Economy
- 2. Chair of Work Economics and Organization
- 3. Chair of Work Safety and Hygiene.

- Institutes.
- 1. Institute of Political Economy.
- 2. Institute of Work Economics and Organization
- 3. Institute of Work Safety and Hygiene in Architecture and Building.
- 4. Institute of Work Safety and Hygiene in Mechanics.
- Institute of Work Safety and Hygiene in Electrotechnics.
- 6. Institute of Work Safety and Hygiene in Chemistry.
- 7. Institute of the History of Engineering.
- 4. Chair of the History of Engineering

Special Departments

- 1. Department of Practical Foreign Language Teaching.
- 2. Department of Physical Training.
- 3. Department of Military Training.
- 4. Correspondence Course at the Faculty of Civil Engineering
- 5. Correspondence Course at the Faculty of Electrical Engineering.
- 5. Correspondence Course at the Faculty of Geodesy and Cartography.
- 7. Correspondence Course at the Faculty of Sanitary Engineering.
- 8. Correspondence Course at the Faculty of Transportation.
- 9. Correspondence Course at the Faculty of Machine Manufacturing.
- 10. Evening Course of Economic Engineering in the Field of Chemical Technology at the Faculty of Chemical Engineering.
- ll. Evening Course of Economic Engineering in the Field of Machine Construction at the Faculty of Machine Manufacturing.
- 12. Separate Technical Engineering Course at the Faculty of Transportation.